

Development of an Agricultural Insurance scheme

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The agricultural insurance, as a risk transfer method is of huge importance for the farmers who are accessing finance. As a high risk group, with serious difficulties in access to finance, this measurement makes the financial institutions perceiving them more favorably, thus giving the farmer a stronger position in the value chain, per se.

The model is based on the assumption that the new scheme will directly eliminate the two main barriers of the reluctance to use this product. The farmers are a target group that finds the state as the most trustworthy counterpart, which significantly eases the penetration of this tool on the market.

Foreword and Methodology

This document is developed by Macedonia Innovation Center (www.i2b.org.mk) for the needs of the USAID AgBiz Program (www.agbiz.com.mk). The Innovation Center is managing the Access to Finance component for the USAID AgBiz Program, in the period of November 2011-May 2013. Component's main objective being to ease the access to finance for the lead actors in the Fresh Fruits and Vegetables and Processed Vegetables value chains, it tackles the main issues that hinder the access to finance. The primary producers (the farmers) are identified as the most vulnerable target group in the value chain, which also carries the largest portion of the risk. As such, the component has directed its activities more towards developing means of mitigating that risk and working jointly with the farmers to overcome the identified barriers in the access to finance process, thus making them more favorable to the Financial institutions.

The methodology behind the development of this document is consisted of three phases:

1. Desk research – the team conducted a desk research on the international, the European, the regional and the Macedonian insurance market, gathering information on the climate changes, the risk mitigation tools, the agricultural insurance, the market relations, etc;
2. Field research – the team identified the stakeholders and their role in this matter. Field research was conducted through questionnaires and individual interviews with all stakeholders, from beneficiaries to policy makers;
3. “Collecting” knowledge – by using the expertise of the pool of financial facilitators, the financial institutions, the insurance companies and consultants, the team developed recommendations on development of a new insurance scheme that assumes to deliver bigger benefit to the agricultural sector.

The information contained in this document is responsibility of Macedonia Innovation Center.

Abbreviations

IC – Innovation Center

FFs- Financial facilitators

FIs – Financial institutions

AtF- Access to finance

RM – Republic of Macedonia

Executive summary

Climate changes, the less favorable economic situation of farmers, policy reforms in terms of consequent reduction of prices paid to farmers, as well as the unbalanced relationship between retailers, have all jointly contributed to the less favorable market position of the Macedonian farmer.

According to the information published by the Association of farmers and MAFWE, out of 70.000 registered individual farmers, only 1000 farmers have insured their crops, which represents less than 1,5%, although other statistics imply that this percentage does not exceed 7%.

While several factors contribute to this less than favorable situation, two certainly prevail; first, the mistrust the farmers have towards the good business practices of the Insurance companies. This in terms of the feeling if something goes wrong who can they complain to; Second, having the government implementing state measures of benefits to the farmers, but in the same time with negative influence towards the stimulation of the utilization of the agricultural insurance.

Two types of agricultural insurance exist on the Insurance market: crop insurance and livestock insurance. Out of 15 Insurance companies doing business on the Macedonian market, only 4 offer this type of insurance, while the leading company being TRIGLAV, with 63% market share. Since couple of years ago, the Macedonian government is stimulating the yield risk transfer through subsidizing up to 60% of the insurance policy cost. However, this measurement is only applicable to the crop insurance, while there is no available objective reason (or a study behind it) why the livestock disease is not supported by this initiative.

Generally, there are four main types of risk transfer and are differently implemented in the developed countries. Slovenia is elaborated as a case study, based on being the most developed country that used to be part of Yugoslavia. The system has started developing after 2003, and by present date, the Slovenians have functional schemes set up and running, and can serve as an excellent role model for the design of our system.

For comparison, in the period of 2010-2012, the trend of utilization of the agricultural insurance increases. This is due to the education and information dissemination to farmers, posting role models among them, and the government's efforts to design appropriate and trustworthy services that impose good business practices to farmers.

The agricultural insurance, as a risk transfer method is of a huge importance for the farmers who are accessing finance. As a high risk group, with serious difficulties in AtF, this measurement makes the Financial institutions treating them more favorably, thus giving the farmer a stronger position in the value chain, *per se*.

Based on the research, a recommendation scheme was developed, mainly stressing the state's role as the driving engine for making the usage of this product best practice. The recommended model stresses the importance of the re-insurance, as a risk management tool that serves as a support to the insurance.

The model is based on the assumption that the new scheme will directly eliminate both main barriers of the reluctance to use this product. The farmers are a target group that finds the state as the most trustworthy counterpart, so this eases the penetration of this tool.

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Problem statement

Climate changes, the less favorable economic situation of farmers, policy reforms in terms of consequent reduction of prices paid to farmers, as well as the unbalanced relationship between retailers have placed the Macedonian farmer in a less favorable position.

There is a general perception that the frequency and intensity of extreme meteorological events is growing. Climatic risks are more important for crops, while sanitary risks are more important for livestock, but none of them is exclusive: pests can have a considerable impact on crops and a bad climatology can make strong damages on livestock farming through the pastures or forage availability.

According to the information published by the Association of farmers and MAFWE, out of 70.000 registered individual farmers, only 1000 farmers have insured their crops, which represents less than 1,5%, although other statistics imply that this percentage does not exceed 7%. Worthy of mentioning is the fact that this product, the crop insurance policy, since 2010, is subsidized by up to 60% (or not to exceed MKD 200.000,00 per agricultural holding) from the Macedonian government.

According to the new law on agricultural cooperatives, which is still in a voting procedure by the Assembly, the farmers who will establish a cooperative will become eligible for state subsidies on the crop insurance policies. 70% of the costs will be compensated for the smaller cooperatives, while the bigger cooperatives will be compensated by 80% of the costs of the insurance policies. The annual amount of the subsidy provided by the state must not exceed MKD 3.000.000,00.

Given the seriously disturbed and regular climate changes, especially draught, hail, frost and excessive rain, the agricultural insurance in Macedonia, since 2011-present, is offered by four Insurance companies:

1. WINNER (www.winner.mk)
2. ALBSIG (www.albsig.com.mk)
3. TRIGLAV (www.triglav.mk)
4. INSURANCE POLICY (www.osiguritelnapolisa.com.mk)

In spite of its availability, the insurance policies are not very popular yet among the farmers. Another problem worth mentioning here is the fact that not all agricultural branches, thus farmers, are addressed with this system. It does not cover the livestock diseases.

Macedonian farmers are not protected taking in consideration that the government has not created an effective system for protection from negative natural influences i.e. drought, flood, hail, fire etc. The money the government distributes to help in case of a natural disaster is not enough to cover the damages. If Macedonia faces a serious destroyed/damaged number of crops every year, that affects other participants in the value chains as well, ending up with unsatisfactory numbers in realized exports, or worst-case scenario, seriously increased need of import due to the lack of domestic production capacities.

In addition, farmers have huge difficulties in accessing finance as individuals who have nothing much to offer as a collateral to financial institutions. This makes them a risky investment to financial institutions, so they are stuck in a status quo position. Having their crops insured makes them more favorable to financial institutions and a more secure partner to the export and processing companies.

General overview

In spite of the climatic risks in a region, other criteria are responsible for the development of agricultural insurance, especially the country's policy and the undertaken measures against natural disasters.

Main tools for risk management in agriculture

Tools for risk management in agriculture are distinguished in strategies concerning *on-farm measures* (diversification of the production programmes) or *risk sharing strategies* like marketing contracts, production contracts, hedging on futures markets, or the participation in mutual funds and insurances.

Calamities funds are regulated by the governments and provided on a regular (annual) basis. All aids are given under the declaration of catastrophes. The main advantage of the funds over ad-hoc aids is that they avoid big distortions of the government budget. Funds sometimes receive also contributions from the private sector, usually in the form of compulsory levies to production or levies to premiums.

Mutual funds are owned by the participants. If mutual funds are organized regionally, the advantage is that farmers organize their own cross-control reducing moral hazard and adverse selection. The disadvantage of regionally organized mutual funds is the danger that many or even all farmers incur losses at the same time. On the other hand, farmers are not always sufficiently organized to set up an efficient mutual fund structure. Solutions to this problem are re-insurance or the cooperation with mutual schemes in other regions, which would cover a share of the loss.

Insurance is probably the best-known risk-pooling tool. In order for a risk to be insurable, two basic requirements have to be met among others: managing the adverse effects of "asymmetric information" and overcoming the implications of "systemic risks", (many people suffer a loss at the same time). Natural disasters or epizootic diseases cause special problems for insurance.

If re-insurance or state guarantees are not available, the nature of the systemic risks makes it necessary for an Insurance company to charge very high premiums, which can be unaffordable for many farmers, and to build up substantial capital reserves. This means that comprehensive agricultural insurances schemes need a strong support from the public sector.

On the other hand, if governments provide ad-hoc disaster payments, it stifles the development of insurance products. Payments for relief from *natural disasters* (directly or by subsidies to crop insurance) happen if there is a formal recognition by government authorities that a natural or like disaster with a production loss exceeding 30% of the average production, in the preceding three-year period or a three-year average, based on the preceding five-year period, excluding the highest and the lowest entry. Agricultural insurances are mentioned, but mostly ad-hoc payments are notified.

Two main types of insurances

The characteristics of specific agricultural insurances are different in the crop sector and in the livestock sector.

Crop insurances

The most widely extended crop insurance in the EU is hail insurance, which often includes other scattered risks such as fire (*single risk insurance*). In many countries this is nearly the only existing type of crop insurance. Some kind of insurance policies cover also the risk of frost or a limited number of meteorological events. These are known as *combined risk insurance*.

The name "*yield insurance*" stands for the type of policy that covers yield losses for a given crop due to any meteorological event. The meteorological origin of the damage has to be identifiable to avoid moral hazard and adverse selection. In general, all the fields of a farm with the same crop have to be insured.

Whole-farm yield insurance refers to all the crops produced by the farm. The insurer will not compensate a yield reduction in one crop if the global production reduction of the farm does not reach the trigger.

Revenue insurance combines yield and price insurance. The farmer is paid if the total value of his production falls below a threshold.

Income insurance takes also into account the costs of production; it is only applied in USA. All the former types of insurance are based on the results of the individual farms and losses are adjusted measured on the field. However, **index insurances** are based on an index common for an area.

In **area-yield insurance**, the compensation paid to the farmer (and the trigger) depend on the statistical yield for the year in a predefined area, usually an administrative unit.

Area-revenue insurance is based on the area yield multiplied by the area price. If the average yield/revenue in that area is below a certain threshold, all the farmers in the area insured for that crop are compensated.

Indirect-index insurance does not refer to the average yield in an area but to a meteorological indicator or satellite images. Weather derivatives can be included in this category of insurances.

Livestock insurances

The main type of risk in the livestock sector is the sanitary risk, but catastrophic climatic events can also have a direct impact on the animals (floods, etc.) and other weather events can affect pasture and forage availability and therefore on the economic sustainability of the farm.

Livestock epidemics can result in substantial losses for governments, farmers and all the other participants in the livestock production chain involved. Member states are obliged to apply the control measures established in EU directives if an outbreak of 'List diseases' arises (Office International des Epizooties, 1998). The European Commission (EC, 2006b) has approved a financial package of €193 million to support programmes to eradicate, control and monitor animal diseases during the year 2007. The 155 programs, which were selected for EU funding, dealt with animal diseases that affect both human and animal health. The large EU contribution towards these programmes reflects the high level of importance attached to disease eradication measures, for the protection of both animal and public health. In the livestock sector, there is a different treatment for direct losses and for consequential losses. Member states governments and European institutions generally support the largest part of the direct losses due to mortality or morbidity, such as the value of destroyed animals. Some member states finance the non-EU compensated *direct losses* from the national budget (Denmark, Finland, France, Ireland, Italy, Luxembourg, Portugal, Spain, Sweden, and United Kingdom). Other member states have set up some form of statutory system to co-finance the direct losses. These public-private financing schemes have a compulsory fund structure in which all farmers pay a tax (Austria, Belgium, Germany, Greece, The Netherlands). Consequential losses, such as losses resulting from empty buildings and movement standstills, are most often completely borne by the farmers themselves. Some EU member states partly compensate consequential losses in a form of ad-hoc relief program (Austria, Belgium, Ireland, etc) or by compensating above the value of the six animals that are forcibly slaughtered to cover part of the consequential losses. In some other EU member states the absence of public assistance has led to the creation of private insurance schemes for some types of livestock production (Germany, Netherlands, Sweden, Spain, United Kingdom, and Italy). There are also some forms of public-private partnership in which the government acts either as an insurer or a reinsurer of a subsidized consequential loss insurance policy (Greece, Spain). Producers do not commonly take up private policies that are specifically designed to cover sequential losses. Only the German "Ertragsschadenversicherung" has a relative high level of participation.

In the EU

The main risk management tools in Europe are **Calamities Funds**, **Mutual Funds** and **Insurances**. **Ad-hoc aids** are generally given when no other tools are available. Aid is often organized in the form of compensation schemes, or funds, partially financed by the agricultural sector, either on a voluntary or on a compulsory basis. There are often public subsidies and/or support to reinsurance, either in the direct provision of insurance or of a public security net (a case in Greece and Cyprus).

Funds and ad-hoc aids

Risk management tools like mutual funds, calamity funds or ad-hoc payments exist in most countries. Agricultural insurances are fostered in countries where the law forbids that ad-hoc measures or disaster funds compensate damages that could have been insured.

In Spain, Austria, Portugal, Greece and Sweden there are no public fund payments if insurances are available. In France, payments include damages for which there is no insurance at all or that insurance has not reached yet a significant diffusion level. In Italy, only subsidized risks are excluded from public ad-hoc payments after natural disasters. In Romania public payments are given to farmers if they have insured “standard risks” like hail. In other countries, it seems that there are no explicit regulations.

| Country | Years available | Average payments per year, M euro | Comments |
|-----------|-----------------|-----------------------------------|---|
| Austria | 1995-2004 | 5,6 | frost, draught, flood |
| Belgium | 1985-2002 | 1,6 | frost, draught, rain, pests |
| Bulgaria | 2000-2004 | 0,4 | Insect pest control fund & others |
| Cyprus | 2001-2004 | 7,2 | |
| Czech Rep | 1995-2004 | 36,9 | flood, drought, frost |
| Croatia | 1997-2004 | 2,5 | 54 M€ in 2003 for drought |
| Finland | 1996-2005 | 11,4 | Crop damage compensation scheme |
| France | 1996-2005 | 155,6 | Drought 67%, frost 19%, rain 13% |
| Greece | 1995-2004 | 70,1 | |
| Hungary | 1999-2002 | 12,2 | Frost, drought |
| Ireland | 1999-2004 | 66,8 | Livestock disease |
| Italy | 2001-2006 | 113,3 | Drought and others not covered by insurance |
| Latvia | 2000-2005 | 3,2 | Frost, drought, rain |
| Romania | last 5 years | 11,4 | Drought, frost, floods |
| Slovenia | 1995-2004 | 9,8 | Drought, hail, frost |
| Spain | 2000-2005 | 3,7 | Frost, drought, rain |
| UK | 2001-2005 | 379,5 | Livestock disease |

Neighboring country case study: Slovenia

Republic of Slovenia has a long tradition of a rather well developed system of general risk and crisis management and protection against natural and other disasters. A systematic treatment of natural disaster prevention and reduction of disaster outcomes is organized under the Administration for Civil Protection and Disaster Relief. This Agency performs administrative and professional tasks related to the organization, preparation and operation of the system of protection against natural and other disasters and it is a body within the Ministry of defense. Agriculture, however, is treated separately and the Ministry of agriculture, forestry and food and bodies within the Ministry performs operational management of activities in this area.

The main government tool in the area of risk related to natural disaster in agriculture was an intervention aid to producers. Until August 2003 there had been no systemic normative regulation to govern the procedures related to disaster relief in agriculture. The government intervention had been based on “ad hoc” intervention laws.

Government expenditures for the purpose of natural disaster relief and other damage in agriculture for the last years represent around 10% of total government expenditure for agriculture. The majority of the funds originate from the budgetary items of other Ministries responsible for natural disasters, which covers the support at the event of draught, frost and hail, whereas the Ministry of agriculture covers the support of damage caused by wild animals and intervention measures under the provision of animal and plant health.

In Slovenia there is no public insurance system to cope with risk exposure in the farming sector at a national level. The need for establishing a system, as known in some of the European countries, has been identified already a decade ago. However, until recently there has been no advancement. Proposals for formation of a public mutual insurance system, risk fund for agriculture or insurance premium subsidies were present in public debate. However, only in the year 2006 for the first time a national programme for insurance premium subsidies has been available to crop producers. This seems to be an initiation to a more systematic “public-private” cooperation in agricultural risk management in Slovenia.

Even though, there has been a possibility to implement programmes for insurance premium subsidies in agriculture at the municipality level and from the municipality budgets. There is rather incomplete information about the extent of the measures prior the year 2004, when the municipalities had to notify programmes according to the state aid requirements. In the period 2004-2006, about half of the municipalities have notified a state aid measure to co-finance insurance premiums to farmers. According to the last available report, in the 2004 total value of support was about 400.000,00 EUR.

Municipalities have supported insurance premiums for crops and animals at different intensity. However, according to the total public expenditure farmers participation has been rather low. Despite a rather favorable geographic location of Slovenia, officially estimated economic implications of natural disasters represent around 2% of GDP in recent years. Agriculture has been the economic activity with the largest share of natural disaster damage. In the period between the years 2000 and 2004 damage in agriculture represented between 44% and up to 93% of total estimated damage from natural disasters in Slovenia, where draught and hail are reported as the main source of damage.

In the year 2006, Slovenian government launched a national scheme of state subsidies for crop insurance, for the first time. The programme is based on the government decree on co- financing of premiums for crops insurance for the year 2006. It lays down procedures of insurance premium co-financing for crops against occurrence of hail, fire and thunder. The aim of the law is to stimulate participation of farmers in insurance that is rather low in Slovenia.

Compensation of losses

The law defines events that are classified as natural disaster (sleet, frost, drought, storm, hail, mass outbreak of animal or plant diseases and pests). Then sources of funding and procedures for determination of damage

compensation levels are described. The source for disaster aid financing is the national budget and the required value of funds is based on Programmes for natural disaster reliefs, which are prepared for each individual occurrence of the natural disaster. If a programme is for the current budgetary year, the funds are ensured from the budgetary reserve. Procedure starts with a notification of a natural disaster at the Administration for Civil Protection and Disaster Relief (in most of the cases by local authorities) which first declare the type and location of natural disaster and then invite affected Municipalities to appoint Municipal board for damage evaluation.

At the same time a six-member National board for damage evaluation is appointed where one member is from the Ministry responsible for protection from natural disasters, two members are from the Ministry responsible for environment, two members from the Ministry responsible for agriculture and one member from the Chamber of agriculture.

Members of the Municipal boards have to be registered at the Administration for Civil Protection and Disaster Relief and have to have certificate of the qualification for natural disaster evaluators.

Education and certification are managed by the Administration for Civil Protection and Disaster Relief. Damage is evaluated according to the government decree on damage evaluation methodology where the precise methodology is defined and evaluation forms prescribed. Owners of agricultural land are solely responsible to inform a Municipal board about the damage. The evaluation is done only in the case the total damaged area of an individual owner exceeds one hectare of comparable agricultural land.

After the Municipal boards evaluate damage, regional reports are being prepared and delivered to the Administration for Civil Protection and Disaster Relief, which does national estimation of damage from natural disaster. The National board for damage evaluation proceeds the Administration's estimation and prepare proposal for the government approval procedure of the damage.

The compensation payments are approved if total damage from an individual occurrence of natural disaster exceeds 0,3 per mille (‰) of expected inflows of governmental budget. In case natural disaster occurs more than once within the period of 120 days than the sum of total evaluated damages is used for decision of compensation payment approval by the government.

The Ministry for agriculture is then responsible for preparation of the Programme for natural disaster relief. Application forms for compensation are processed by the Agency for agricultural markets and rural development (the paying agency) and finally criteria for compensation are decided. Payments to the impaired owners are made by the paying agency that also calculates possible advance payments. Final report of natural disaster relief programme is debated and approved by the National parliament.

Beneficiaries are individuals with permanent residence in Slovenia, who are farming on the area, affected by the natural disaster and are registered in the Register of agricultural holdings. Agricultural enterprises are treated equally and under the same conditions.

Disaster aid is paid to the applicant if the evaluated damage resulting from natural disaster reaches 30% of normal production, whereas for the less-favored areas the limit is set at 20%. If a natural disaster results in a long term production potential deterioration (e.g. perennials) than the aid is paid when the production in the first year after the natural disaster occurrence is reduced by 10%. Moreover, in all the following years in which the production is reduced due to the natural disaster the total damage have to sum up to 30% of a standard annual production and for the less-favored areas the damage is set to 20%.

The level of compensation is at maximum 40% of total damage, whereas for the insured crops the level is at maximum 60%. Demonstration of damaged crop insurance for higher level of compensation is a proof that the insurance company has paid damage, which is higher than 30% of total damage. The total sum of market value of damaged crops, disaster aid, payments from insurance and all other budgetary transfers (e.g. municipality aid) should not exceed a value of agricultural production in normal production year (absence of natural disasters). There is a threshold - minimum amount of payment per farm under which the disaster aid is not paid and is about EUR 240 (USD 312,00).

Damage from mass outbreak of animal or plant diseases and pests are treated in the same manner.

Market conditions

Competition on prices

Four insurance companies in Slovenia offer insurance products for agriculture.

The largest two are important players in the market and according to the estimation represent more than 80% of total premiums in agriculture. The other two companies are much smaller and agriculture insurance is not in their core business strategy. Rivalry on the market for agricultural insurance is rather extensive both in terms of price and non-price competition. A kind of spatial division exists between the largest two companies that is somehow natural due to the headquarters location.

In terms of price, there is no explicit competition since insurance premium is determined on the basis of insurance sum that is determined on the expected revenue from the crop (yield times average price) which is a rather objective value. The insurance sum is multiplied by a premium rate related to the specific location of the individual field to be insured, risk coverage and crop type. The largest two insurances originate from the same company and the approach for premium rates determination in agriculture remained equal also after the Insurance association was divided.

It is also possible to conclude that price competition does not exist due to the already mentioned “soft” territorial division in which individual insurances actively operate. However, it is not possible to conclude about market distortion due to the described situation. Prices of insurance remain low despite the negative operational result for the most of analyzed period. The factor that keeps insurance prices down is low propensity to insure among the Slovenian farmers, and therefore companies are trying to retain the volume of insurers.

Insurance products available

According to the Insurance act, insurance in agriculture is classified within the category of “Other property insurance” and subdivided into the “Crop insurance” and “Animal insurance”. This division is also the most detailed level for which the official statistics is available. There is no data available on area under insurance, crop structure, neither no. of animals or species. Availability of data on the area of insurance is an important difficulty in Slovenia.

Crop insurance

Crop insurance holds slightly higher share in total premiums paid in agriculture than the animal insurance. In all Slovenian insurance companies there is an equal division of crop insurance products into basic risk coverage and extended coverage.

The basic risk coverage includes yield insurance for hail, fire and thunderstorm for all crops grown in Slovenia. Besides yield insurance for fruit within the basic risk coverage, there is also a quality loss caused from hail offered by all insurance companies. There is literally no difference in insurance condition among the companies. The area of extended coverage is more diverse; however, the main products are similar.

Insurances are offering extended coverage for the risk of floods (arable crops and vegetables), spring frost (fruit plantations and vineyards), quality loss for seed grain, insurance of young (pre-fertile) fruit plantations and vineyards, insurance of crops in glasshouses. Extended coverage is conditioned with the basic coverage insurance.

There is no insurance for crop diseases by Slovenian insurances.

Insurance period is for one production year until the harvest of the crop. Coverage of loss from insurance contract as a rule starts after the 24th hour of the fourth day from the validity of the insurance.

Insurance premium is determined on the basis of the insurance sum which is decided by the insurer. The insurance sum, however, could not be higher from the value determined by the insurance which is based on the maximum expected yield of the particular growing region and expected average market price. Insurance

premium is than calculated with the use of premium class decided by the insurance. Most of the crop insurance is made within the basic coverage class. There is a rather limited demand by the farmers for the offered products of extended coverage in recent years.

Slovenian insurances offer payment of premiums in two installments without interests. The first installment of 20% is paid when the insurance contract is made, whereas the remaining sum is paid after the harvest or at the latest by October 31th. Indemnities are paid according to the condition set in the insurance contract, however in most of the cases the difference between the actual value of production and defined insurance sum.

Animal insurance

Also in animal insurance, products available in Slovenian insurance companies are similarly divided into a basic coverage and an extended coverage.

There are two categories of animals: breeding animals/basic herd (breeding cattle, cows, boars, horses) and fattening animals (shoats, bulls and broilers). The basic risk coverage includes ruin from disease or accident, emergency slaughter or slaughter from economic reasons. Extended coverage is possible for risk of medical treatment costs (for both breeding and fattening animal categories), insurance of risk from infertility (heifers and caws), insurance of animals in quarantine (breeding and fattening animals), risk of transportation to slaughtering (fattening animals), risk of animal exhibitions.

The insurance period for animals is one year. Coverage of the risk of ruin and emergency or economic slaughtering from accident starts after 24 hours. However, all risk from animal diseases starts after the 30th day from the beginning of the insurance contract.

Insurance premium is determined on the basis of the insurance sum which is decided by the insurer. The insurance sum depends from species, age, type and market value of the animal.

Insurance premium is defined each year taking into account present risk factors. Depending on changes in risk and other factors the premium might be decreased or increased.

Indemnities in case of ruin are equal to the insurance sum less the franchise. When the insurance payment is determined for emergency or economic slaughtering the market value of the slaughtering gain (e.g. meat sold) is deducted from the insurance sum if the meat is appropriate according to the veterinary and sanitary regulation. In some cases, insurance already defines the proportion of the indemnity depending from the cause of risk.

Insurance against risk of veterinary treatment cost is increasing in Slovenia recently. In this case, insurances have introduced franchise clause which is between 30% and 40% depending on the category of animal. The owner then participates in costs in the defined proportion.

Agricultural insurance coverage in Slovenia for the period 2000 – 2004 (share in total insurable output)

| <i>Insurance coverage (est.)</i> | <i>2000</i> | <i>2001</i> | <i>2002</i> | <i>2003</i> | <i>2004</i> |
|----------------------------------|--------------|--------------|--------------|--------------|--------------|
| Crop production | <i>16.0%</i> | <i>19.1%</i> | <i>16.5%</i> | <i>19.0%</i> | <i>16.8%</i> |
| Animal production | <i>16.1%</i> | <i>16.1%</i> | <i>16.3%</i> | <i>16.5%</i> | <i>15.4%</i> |

Reinsurance

Private or public main re-insurers Reinsurance rates

The reinsurance for agriculture in Slovenia is private – e.g. done with the commercial reinsurance companies. There are two reinsurance companies in Slovenia with rather balanced market share. The largest holds about 60% of the gross reinsurance premiums.

The reinsurance rates are determined in respect to the market condition and are varying across the years. It is a strategic decision whether the company will reinsure agricultural insurance and at which rate. Usually the principle of “stop loss” is applied when the interval of coverage is determined with the reinsurance. The costs of reinsurance are often perceived as an additional burden to already negative economic results from agricultural insurance. As an example one of the Slovenian insurances has not taken reinsurance in one of the recent years.

Changes undergoing the system

The main change that happened in the year of 2006, determined the system of agricultural insurance in co-financing of insurance premium for crops. The coverage has been extended to animal insurance premium in 2007. In addition, the budgetary expenditure intended for the measure had tripled in the year 2007. Regarding the natural disaster definition there are proposed changes to exclude whether condition from the list of natural disasters to comply with proposed Community guidelines for state aid in the agriculture sector 2007-2013. However, the process of harmonization has not yet been started neither the final decision regarding the fine-tuning of the policy reform. Introduction of the insurance premium co-financing might be perceived as an accompanying measure to the reform of the disaster aid support.

The most considerable reform or better change is necessary regarding the risk-perception (risk-awareness) by the agricultural producers. Within the last decade, the policy of natural disaster aid has reduced individual farmer's responsibility to risk management. The overall perception is that there is a free ad-hoc measure of state aid for a rather wide coverage of natural disaster risks and therefore farmers are not stimulated to make prevention measures.

Rather generous disaster aid policy in agriculture during the last decade has also prevented necessary development of the private insurance sector.

It is crucially important to communicate the proposed changes in natural disaster aid to farmers in order to stimulate more active risk management practice.

General overview of Macedonia

Facts

| | |
|---|--|
| Geographical location | Southeast Europe-Balkan |
| Climate | Continental/Mediterranean |
| Total area | 25.713 km²; (41% of the total is agricultural area/ 1/3 is classified as farmland) |
| Population: | 2.048.619 |
| GDP of the primary agriculture including the sectors of Hunting and Forestry is | 9,4% (2007) |
| of the workforce is working in the agricultural sector (2007) | 167.992 (18%) |
| Total share of agricultural products and food in 2009 | |
| Import | 18,6% |
| Export | 13,4% |

Climate situation

The importance of the agriculture for the incomes for life of the people who live in the rural areas is crucial given the fact that over 18% of the population is working in this industry and their contribution to the GDP is 12%. The agriculture is an economic branch with high sensitivity of the climate changes, hence the vulnerability of a big part of the rural population and their incomes for life from the climatic changes. The historical data point that Macedonia is characterized by great climatic variability, proven by the increase of the middle temperature, decrease in humidity, but also with extreme weather changes, such as draught, hot flashes and forest fires. Climatic forecasts indicate the following:

- ✚ Until 2050, 1,9 Celsius degrees increase of the middle annual temperature, with highest increase of temperature in summer of 2,5 Celsius degrees;
- ✚ Until 2050, decrease of the average annual atmosphere rain of up to 5%, and a decrease of 17% during summer;
- ✚ The marginal and risky agricultural circumstances, such as the temperature increase and the decrease of rains, during the main harvest or during the grow of the pastures, which will worsen the already significantly decreased humidity of the crops, especially during summer;
- ✚ The increased exposure to new pests and diseases at the agricultural crops, forests and livestock because of changes of temperatures and the regime of rains;
- ✚ Prolonged and still growing season will enable new crops in certain areas, increase productivity and changes in the yield planning.

The Macedonian agricultural sector is considered as one of the most essential sectors in the national economy. The agricultural GDP is around 12% of the entire GDP of the Macedonian economy with slight changes of 1-1,5% in the past 5 years. Together with the processors, it represents 16% of the GDP. The agriculture represents a significant source of income for a substantial number of people in the country. About 20% of the workforce in Macedonia generates income from agricultural activities. Based on the agricultural census in 2007, there are 192.378 agricultural households with an average size of the farms of 1.62ha. Nevertheless, the majority of the farms in Macedonia are farms with mixed agricultural activities and size of the agricultural land less than 0.5ha. In addition, 297 legal entities contribute to this sector.

Macedonian agriculture and its disadvantage – adaptation

The sensitivity of the agricultural sector towards the climate changes has severe implications to the country per se. Having in mind that a significant part of the rural population is poor and highly dependent on the agricultural sector for the incomes for life, the rural communities are highly vulnerable and under a risk of any type of changes that occur as a direct result of the climate changes. This risk is further on enhanced by the relatively low productivity related to lack of capacity to adjust to the present climate situation, also known as disadvantage of adaptation. The decreased productivity and the lack of capacity are at best explained by blaming a complex group of factors including distorted and imperfect incoming and outgoing agricultural products on the markets. The low quality of services in the agricultural education system, transfer, research and data presentation; postponing the reconstruction of the agricultural farms and underdeveloped agricultural markets; lack of access to finance, inappropriate soil management; insufficient irrigation; as well as high vulnerability to natural disasters, such as draught, flood, frost, and severe weather conditions. The challenges caused by such an unfavorable setting for the agriculture will be significantly increased, because of the climate changes. Hence, one of the means for management of risks is the crop insurance, a product that enables indemnification and protection of the yield.

Market situation: stakeholders

Insurance companies

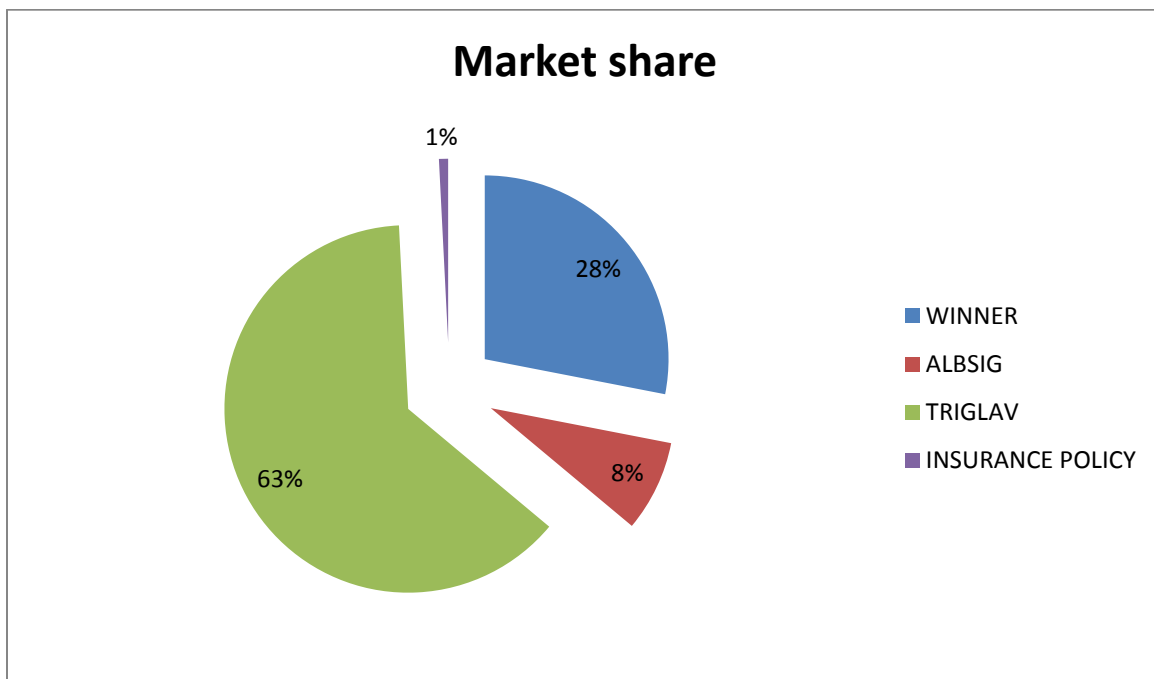
There are 15 Insurance companies currently doing business in Macedonia. The Insurance companies have enabled the service crop insurance for the farmers, as a preventive act towards the damages caused by the natural disasters. The importance of the crop insurance was emphasized by the Macedonian government couple of years ago resulting in subsidizing the cost for the insurance premium, by 60%, 2 years in a row. The objective of the insurance policies is not to avoid or eliminate the risk, but to transfer the same at the insurance companies. The bigger the number of the insured farmers exposed to similar risks, the more precisely the insurance assessors can assess the forecasted damages, and as a result, to calculate appropriate and fair premium for the insured farmers, which is the price of the insurance policy. In addition, the Insurance companies will lower the prices of the policies if the number of farmers who insure their crops increases.

According to the representatives of the Insurance companies, one of the reasons for low adoption of the crop insurance are the expectations of the farmers, that damages caused by the natural disasters will be covered by the government. In addition, they find the claims from the farmers that the prices for the premiums are too high, unfounded.

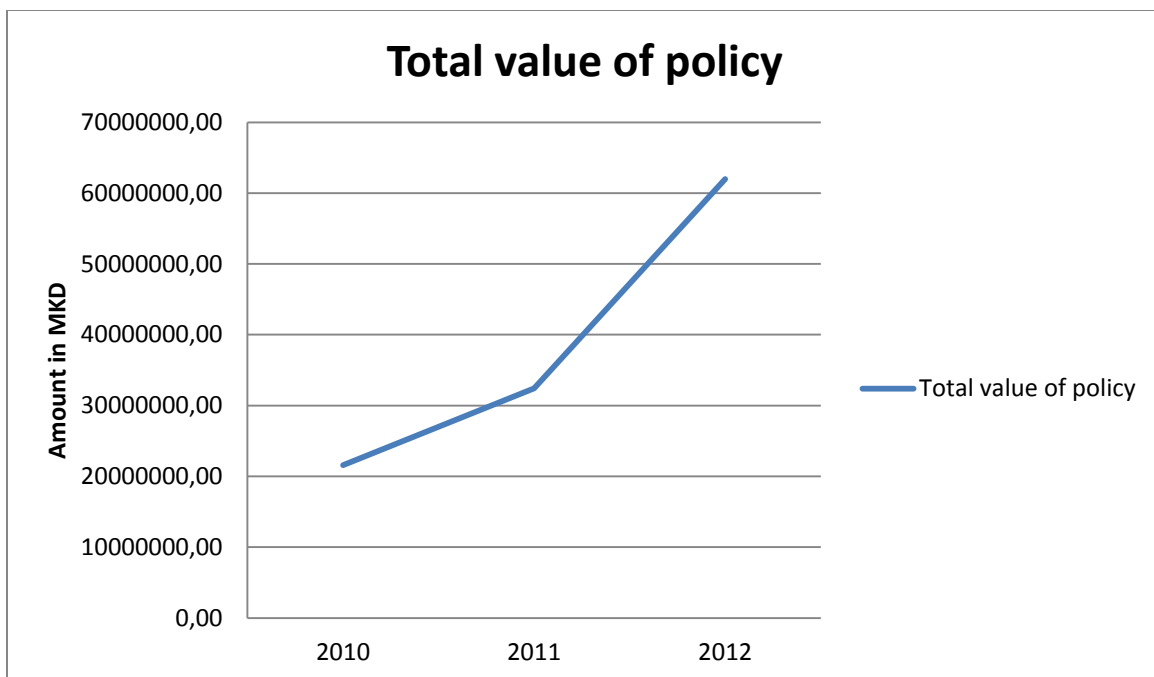
For example: In order to insure 1ha of corn, the farmer needs to pay MKD 600,00 (app. USD 13) annual premium. In addition, s/he has to pay 20% of the premium before the sowing and another 20% of the premium post-harvest. The Macedonian government covers the rest 60% of the premium cost.

As shown in the tables below, in 2010, three Insurance companies supported crop insurance, in total value of USD 469.089,00, while in 2011 this amount increases by app. 33%, now offered by 4 Insurance companies. Having the leader being Insurance company TRIGLAV with 63% market share, in 2012, the total value of policies issued to farmers marks an increase of 48% compared to 2011.

Market share of the Insurance companies that provide crop insurance



Total value of policy in 2010



Overview of the number of policyholders by Insurance companies, the total value of the policy and 60% of the policy for 2010

| | Insurance company | Number of policyholders (applicants for subsidies from the government) | Total value of the policy in MKD | 60% of the policy in MKD |
|---|-------------------|--|-------------------------------------|-----------------------------|
| 1 | WINNER | 388 | 6.291.000 | 3.775.000 |
| 2 | TRIGLAV | 854 | 14.977.000 | 8.986.000 |
| 3 | INSURANCE POLICY | 20 | 310.000 | 186.000 |
| | Total | 1262 | 21.578.000 | 12.947.000 |

Source: ISA (www.aso.mk)

Overview of the number of policyholders by Insurance companies, the total value of the policy and 60% of the policy for 2011

| | Insurance company | Number of policyholders (applicants for subsidies from the government) | Total value of the policy | 60% of the policy |
|---|-------------------|--|------------------------------|----------------------|
| 1 | WINNER | 402 | 8.600.000 | 5.160.000 |
| 2 | ALBSIG | 123 | 2.459.000 | 1.475.000 |
| 3 | TRIGLAV | 920 | 21.212.000 | 12.727.000 |
| 4 | INSURANCE POLICY | 11 | 151.000 | 91.000 |
| | Total | 1456 | 32.421.000 | 19.453.000 |

Source: ISA (www.aso.mk)

The Insurance Supervision Agency (ISA) – www.aso.mk

ISA was established in 2009. It is authorized to perform supervision over the insurance undertakings, insurance brokerage companies, insurance agencies, insurance brokers and agents, all related parties defined by the Insurance Supervision Law. The ISA is also authorized to issue and withdraw licenses, consents, to issue measures and sanctions, to adopt secondary insurance regulation and to propose amendments to primary insurance regulation.

ISA has issued a detailed brochure and other related material on Agricultural Insurance for the purpose of promoting the insurance policies in Macedonia as an effective means for crop/yield protection of the agricultural products from risks related to the weather conditions, the natural disasters, pests and diseases.

The developed brochure provides answers to the most common questions of the farmer and detailed description of the steps required in order to buy the insurance policy subsidized by the government.

The obligation of an Insurance company to pay remuneration for the caused damages starts after 24 hours from the day stated as a starting date on the purchased policy. An Insurance company is not obliged to indemnify upon damage if caused on purpose or deceitfully by the farmer.

Procedure for acquiring financial support:

- **An application** and the related information submitted to the regional offices of MAFWE ;
- The regional office of MAFWE issues a **Confirmation** regarding the disposal of the production capacities and submits the same to the applicant;
- The applicant **submits the Confirmation** to the Insurance company;
- The Insurance company **issues an Insurance Policy**;
- The applicant **pays 40% of the policy cost**;
- **One copy** of the policy needs to be returned at the regional MAFWE office by the applicant, in order to complete his/her documentation; *NOTE: this is the step that seems to cause most of the problems when it comes to charging the rest of the 60% of the policy cost by the Insurance companies. The farmer rarely completes this step.*
- **The Agency for financial support of agriculture and rural development (www.ipardpa.gov.mk)** will execute the payment of the funds, upon the assurance that all criteria stated by the program are met. The amount paid to the insurance company does not exceed 60% of the cost of the policy.
- The applicant seeking financial support, can insure his/her agricultural capacities in an insurance company of his/her own preference;

Short description of the indemnification procedure:

- The farmer submits charges to the Insurance company for the damage occurred;
- The Insurance company is obliged to assess and estimate the damage charged;
- The assessment and the estimation are conducted by a representative of the insurance company (assessor-an agricultural expert) and the farmer;
- Upon request, the farmer is obliged to submit the entire documentation in order for the damage to be indemnified;
- The assessor confirms the amount of damage;
- The insurance company checks upon the terms of the insurance – to assure the risks covered in the policy;
- The insurance company informs the farmer upon the decision and has a legal obligation to pay remuneration to the farmer within 14 days;

Insurance brokers

Insurance brokers are certified individuals who practice insurance as intermediaries between the insurance companies and the client (farmer in our case). The insurance broker is the person the farmers contact in case of required payment from the policy, and it is the broker's responsibility to complete all tasks on the clients' behalf.

The Government and MAFWE

Until couple of years ago, the Macedonian government, through the Ministry of Agriculture, dedicated significant portion of the budget to missiles against hail. Unfortunately, this risk preventive measure did not protect the crops; on the contrary, it caused severe damages, causes fires, explosions, and sometimes can cost human lives. These are the basic reasons why the government, has decided to reallocate the budget towards

more effective means, such as subsidizing the insurance policies for crop insurance. In addition, a very logical explanation is that it is simply irrational not to insure the production, when working under an open sky. Even in Yugoslavia, the crop insurance was a common practice and a legal obligation. Macedonian farmers must regain that habit. The subsidies cover the following products: wheat, barley, corn, grapes, tobacco, tomatoes, peppers, cucumbers, melons, apples and peaches, and compensate in case of basic risks such as – hail, fire and storm.

The total amount allocated for financial support in the agriculture for 2013 is 120 million EUR, while the assets allocated for financial support to the rural development for 2013 are app. 19 million EUR.

Some experts find that farmers' lack of interest in insuring their crops impedes the Insurance companies to hire and train expert staff that will be evaluating the damages, because of its economic ineffectiveness. For the purpose, MAFWE organized licensed trainings for damage assessors, to whom it will issue the licenses in agriculture, to foster the accessions throughout the country.

The government considers that the mindset of the farmers changes slowly. Although they will not abolish the damage compensation fee as a means to motivate farmers to insure their crops, the budget dedicated to this activity will decrease within each year and quite often, it is not enough to cover the damages caused by natural disasters.

Overview of the number of policyholders by municipality, for the measure for insurance, for 2010

| | Municipality | Number of policyholders (applicants for subsidies from the government) | Total value of the policy | 60% of the policy |
|-----------|---------------------|---|--------------------------------------|------------------------------|
| 1 | BEROVO | 10 | 68.000 | 41.000 |
| 2 | BITOLA | 24 | 258.000 | 155.000 |
| 3 | VALANDOVO | 43 | 1.080.000 | 648.000 |
| 4 | VELES | 32 | 635.000 | 381.000 |
| 5 | VINICA | 2 | 19.000 | 11.000 |
| 6 | GAZI BABA | 2 | 8.000 | 5.000 |
| 7 | GEVGELIJA | 29 | 917.000 | 550.000 |
| 8 | DELCEVO | 2 | 5.000 | 3.000 |
| 9 | DEMIR HISAR | 2 | 6.000 | 4.000 |
| 10 | KAVADARCI | 274 | 5.855.000 | 3.513.000 |
| 11 | KOCANI | 3 | 43.000 | 26.000 |
| 12 | KRATOVO | 4 | 11.000 | 7.000 |
| 13 | KRUSHEVO | 5 | 28.000 | 17.000 |
| 14 | KUMANOVO | 4 | 22.000 | 13.000 |
| 15 | NEGOTINO | 214 | 4.024.000 | 2.414.000 |
| 16 | PRILEP | 97 | 1.138.000 | 683.000 |
| 17 | PROBISHTIP | 7 | 126.000 | 76.000 |
| 18 | RADOVISH | 185 | 1.923.000 | 1.154.000 |
| 19 | RESEN | 46 | 1.342.000 | 805.000 |
| 20 | SVETI NIKOLE | 144 | 1.542.000 | 925.000 |
| 21 | STRUMICA | 112 | 2.314.000 | 1.388.000 |
| 22 | CHAIR | 1 | 4.000 | 2.000 |
| 23 | SHTIP | 20 | 212.000 | 127.000 |
| | Total | 1262 | 21.578.000 | 12.947.000 |

Source: ISA (www.aso.mk)

Overview of the number of policyholders by municipality, for the measure for insurance, for 2011

| | Municipality | Number of policyholders (applicants for subsidies from the government) | Total value of the policy | 60% of the policy |
|----|-----------------|--|------------------------------|----------------------|
| 1 | BEROVO | 28 | 318.000 | 191.000 |
| 2 | BITOLA | 10 | 231.000 | 139.000 |
| 3 | VALANDOVO | 24 | 666.000 | 399.000 |
| 4 | VELES | 67 | 1.583.000 | 950.000 |
| 5 | VINICA | 2 | 49.000 | 29.000 |
| 6 | GAZI BABA | 2 | 11.000 | 7.000 |
| 7 | GEVGELIJA | 21 | 454.000 | 272.000 |
| 8 | DEMIR HISAR | 2 | 17.000 | 10.000 |
| 9 | KAVADARCI | 373 | 9.018.000 | 5.411.000 |
| 10 | KOCANI | 3 | 28.000 | 17.000 |
| 11 | KRATOVO | 9 | 38.000 | 23.000 |
| 12 | KRUSHEVO | 6 | 58.000 | 35.000 |
| 13 | KUMANOVO | 3 | 29.000 | 17.000 |
| 14 | NEGOTINO | 274 | 5.280.000 | 3.168.000 |
| 15 | OHRID | 1 | 33.000 | 20.000 |
| 16 | PRILEP | 56 | 925.000 | 555.000 |
| 17 | PROBISHTIP | 1 | 52.000 | 31.000 |
| 18 | RADOVISH | 102 | 1.217.000 | 730.000 |
| 19 | RESEN | 208 | 8.501.000 | 5.101.000 |
| 20 | SVETI NIKOLE | 154 | 1.893.000 | 1.136.000 |
| 21 | STRUGA | 1 | 18.000 | 11.000 |
| 22 | STRUMICA | 89 | 1.741.000 | 1.045.000 |
| 23 | TETOVO | 1 | 19.000 | 11.000 |
| 24 | SHTIP | 19 | 241.000 | 145.000 |
| | Total | 1456 | 32.421.000 | 19.453.000 |

Source: ISA (www.aso.mk)

Financial institutions

The Financial institutions consider the farmers a high-risk investment group, so they usually provide loans to those farmers who have been subsidized by the Government already. The amount of loans requested is app. USD 4.500,00 for working capital and USD 20.000,00 for capital investments. The average interest rate of the commercial banks is 8%, and the average period of returning the loan is 3,5 years. Unofficially, the total

number of issued loans by the FIs in the agricultural sector is 300 million EUR (app. 8% of the total amount of loan distributed).

The usual requirements posed by the FIs to the farmers are the following:

- a) Solid credit history of the farmer;
- b) Mortgage – plantation 1m²=1EUR approved loan, or unplanted crop 3m²=1EUR approved loan;
- c) Additional mortgage or guarantors;

The investment programs are an integral part of this story. In practice, the FIs that require this document are the ones most favorable to providing loans to farmers. The difficulty here is the fact, that the farmer needs an external knowledge in order to prepare this document, such as a financial facilitator/advisor.

Although, the FIs find it more favorable to provide loans to farmers who have already insured their crops, which make them less risky an investment, generally, having the crops insured, is not a “must have” requirement by the FIs.

Farmers

The farmers are pretty divided in their opinions regarding the government’s decision in crop insurance. One side considers that the missiles against hail should not be abolished, while others favor the insurance as preventive risk measure. Although, it remains a fact, that Macedonian farmers have not developed a habit, nor tradition in crop insurance. In their opinion, this might be a good idea, but it takes time to be adopted among the farmers.

For the Macedonian farmers it is arguable whether the Insurance companies have any experts who would professionally assess the damages of the eventual natural disasters. Others, point to the fact that the insurance subsidies must cover over 50% of the policy expenses and need to cover more agricultural branches, such as livestock. For this last issue, the MAFWE, the Government and its Agencies, are not providing the public with relevant and sound information on the question why do the subsidies not cover the livestock in Macedonia. Off the record information points to the huge budget requirements this branch requires, the lack of expert assessors in determining the true reasons of damage, as well as that this branch is very profitable on its own, while government’s priority is to provide basic food production.

Nevertheless, they all agree that this issue requires activities in building awareness through organizing public debates and seminars held by experts and representatives from the insurance companies, disseminating information and experience, thus getting the farmers acquainted to the crop insurance benefits. The Macedonian Insurance Supervision Agency (ISA) in cooperation with the National Extensions has organized several events throughout the country for over 100 farmers, disseminating the benefits of the insurance policy.

In addition, the farmers consider the premium prices to be too high, although they understand that the prices will lower as the number of farmers who have insured their crops increases.

Although the numbers of the insurance policies continuously rises, the number of farmers who are using this product is very low (app. 1%) – The success of this product is highly dependent on the farmers’ will.

Nevertheless, there are several objective reasons for this occurrence, such as in cases when public land is given for usage to a different person by notary act, which cannot use the subsidies provided by the state. The insurance companies argue that the state should not provide for indemnification to farmers post damages, when there is an opportunity which decreases the insurance expenses.

The farmers find the rest of the 40% they need to provide for the insurance policy excessively high, especially

because they do not find it proportional to their income and distrust the Assessors. Another specific problem is the fact that it takes substantial time (unless a natural disaster occurs) in order to feel the benefits from the insurance.

Agricultural insurance - summary data, year of 2012

Sums are expressed in MKD

| | ALBSIG | | WINNER | | INSURANCE POLICY | | TRIGLAV | |
|----------------------------|------------------|----------------------|------------------|----------------------|------------------|----------------------|------------------|----------------------|
| | No. of contracts | Gross policy premium | No. of contracts | Gross policy premium | No. of contracts | Gross policy premium | No. of contracts | Gross policy premium |
| Natural persons | | | | | | | | |
| <i>Crop insurance</i> | 115.000 | 1.933.000 | 409.000 | 9.509.000 | 15.000 | 182.000 | 910.000 | 23.311.000 |
| <i>Livestock insurance</i> | 0 | 0 | 0 | 0 | 0 | 0 | 13.000 | 739.000 |
| Legal persons | | | | | | | | |
| <i>Crop insurance</i> | 4.000 | 49.000 | 57.000 | 5.125.000 | 1.000 | 257.000 | 66.000 | 8.928.000 |
| <i>Livestock insurance</i> | 0 | 0 | 0 | 0 | 2.000 | 392.000 | 119.000 | 14.591.000 |
| TOTAL | | | | | | | | |
| <i>Crop insurance</i> | 119.000 | 1.982.000 | 466.000 | 14.634.000 | 16.000 | 439.000 | 976.000 | 32.239.000 |
| <i>Livestock insurance</i> | 0 | 0 | 0 | 0 | 2.000 | 392.000 | 132.000 | 15.330.000 |

Source: ISA (www.aso.mk)

Federation of farmers of RM and Association of farmers

According to FFRM, the crop insurance as a preventive measure should encounter a mass support from the farmers because it will not only prevent the hail damages or other types of natural disasters, but will decrease the price of the insurance policy. FFRM recognizes the problem with the crop insurance and its negative effect on the access to finance for farmers. The FFRM staff has felt the need to analyze the problem and suggest scheme improvements, but they lack the resources to do so. Another problem is that, not all branches in Agriculture are covered by the subsidies. According to FFRM, it will be extremely useful if someone can undertake this kind of an activity, which is complementary to FFRM's activities. As a sign of willingness for cooperation, jointly we conducted a small survey¹ on farmers providing that 100% of the respondents have experienced crops damages in the last 2-3 years, while 67% of the respondents have not insured their crops.

Recommendation scheme

Main reasons for failure of the present agricultural insurance scheme are:

- ✚ The remaining 40% of the cost of the insurance policy are perceived as a huge expense for farmers;
- ✚ The low awareness of the benefits of the crop insurance;
- ✚ Inadequate definition of subsidies users for crop insurance (defined users without an appropriate analysis);
- ✚ Lack of interest of the insurance companies to offer products to the farmers; This type of products require lots of resources in terms of people, expenses and knowledge;
- ✚ The participation of the agricultural insurance to the total policy premium is 0.3% or in absolute number EUR 350.000,00;
- ✚ The lack of trust the farmers have towards the insurance companies.

The offered recommendation is a development of new agricultural insurance scheme fully managed by the state authorities. The leading role for implementing this new scheme is to be performed by the Agency for financial support of agriculture and rural development or MAFWE. The scheme considers the MAFWE as the most appropriate institution to carry the new agricultural insurance scheme, considering its National extensions (present in 33 municipalities in Macedonia) and have access to all relevant data and information on the farmers and their crops.

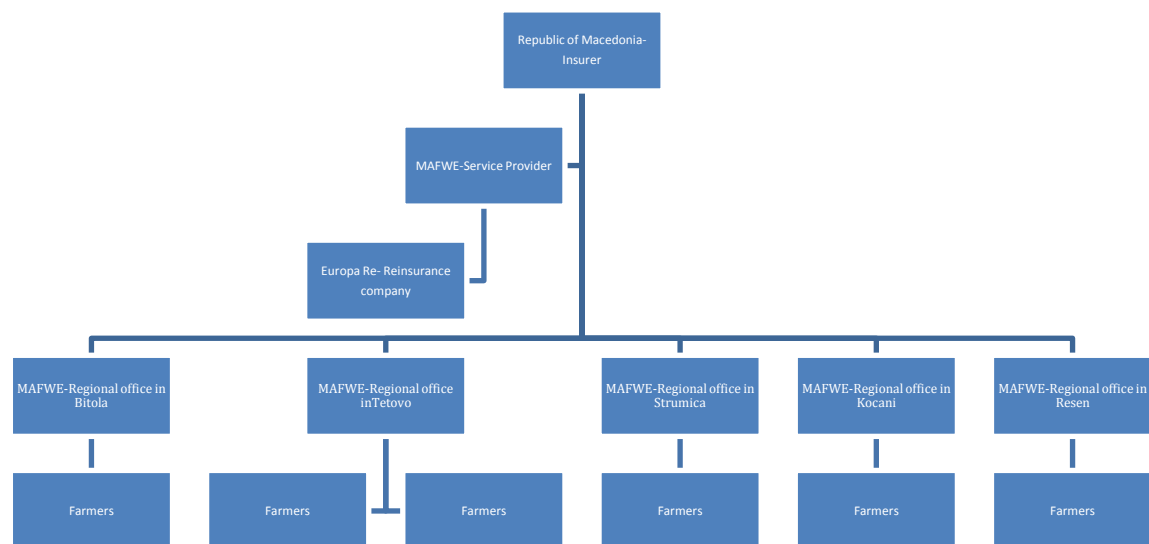
It will cover the entire territory, as well as the established relationships that these units have with the farmers through the application process and the allocation of the subsidies by the state. The National extensions dispose with relevant data for the farmers and their properties, which will enable easier tracking of the real estate, i.e. the number of crops insured by the farmers.

Additional value to this organizational scheme managed by the state is its participation in the establishment of the reinsurance company Europa RE, company aimed for reinsurance of the agricultural insurance in the Balkan region. This company is founded by the countries of southeastern Europe and supported by the World Bank, where aside of the neighboring countries, Republic of Macedonia participates with 5 million EUR. The participation of RM in the establishment of Europa RE will enable larger risk dispersion, enabling the state to reach its goals with fewer expenses (increased scale in crop insurance). By using the reinsurance the state will enable lower premium prices, identified as one of the key problems why farmers do not use the insurance, also at the same time, with smaller budget allocated to this activity, it can provide for the coverage of higher risks in addition, meaning to insure larger portions of the farmers' properties.

By using the services of the reinsurance company Europa Re, enable usage of the knowledge and the positive experiences of the World Bank will be enabled; in this case, the World Bank appears in the role of a mentor and an initiator for establishment of this new reinsurance company. By involving Europa Re in the process, an introduction of some new products in the field of agricultural insurance that already exist in the world market for longer time will be enabled.

The assumption is that if the state implements this new agricultural insurance scheme, it is recommended that the crop insurance becomes a mandatory condition to becoming eligible for state subsidies, because the new scheme makes the insurance policies by far more available and more acceptable to farmers (cost-beneficial). This scheme provides the state to offer a "one stop shop" support to the farmers, through MAFWE being the service provider.

Having the insurance scheme positioned this way, the usage of the agricultural insurance by the farmers will significantly increase. This will contribute to lowering the risks of the farmers from natural disasters, and at the same time, easing the access to finance for the farmers. The previous situation will increase the interest of the financial institutions to financially support the farmers, as the second are perceived less risky because of the intensive usage of the agricultural insurance. The team considers that an insurance scheme in the agriculture set this way, managed by the state, would complete the set of measurements undertaken by the state itself, aiming to support and develop the agriculture sector in Republic of Macedonia.



Advantages of the proposed insurance scheme:

The state has full control over the Insurance scheme. The state becomes an Insurer that provides the insurance services through MAFWE, i.e. its regional offices that cover all regions. So far, the state has been completing the role of solely a passive partner by co-financing the costs of the insurance policy, while four private insurance companies provide the services of crop insurance. These on the other hand, for several reasons such as huge perceived costs of managing the product, low interest by farmers, lack of knowledge and developed expertise for marketing the product, are not very interested in pushing this product, which results in a highly ineffective product proven by the small number of users. This is evident by the very small share the agricultural insurance has in the Insurance business in general. Having in mind the significance of the agriculture, its participation in the GDP and the workforce development, supporting the development of this sector by securing fruitful yields is of a strategic interest. For the purpose, the state itself needs to presume control over a proper implementation of different measurements and instruments, so that it supports the industry in a proper manner. The agricultural insurance, as a risk transferring method, is only one of those instruments that offer the needed support to the farmers.

The allocated budget for crop insurance subsidies will have a bigger impact by having the state participating in Europa Re, the reinsurance company. The same budget will assure insurance products covering bigger risks, at lower costs.

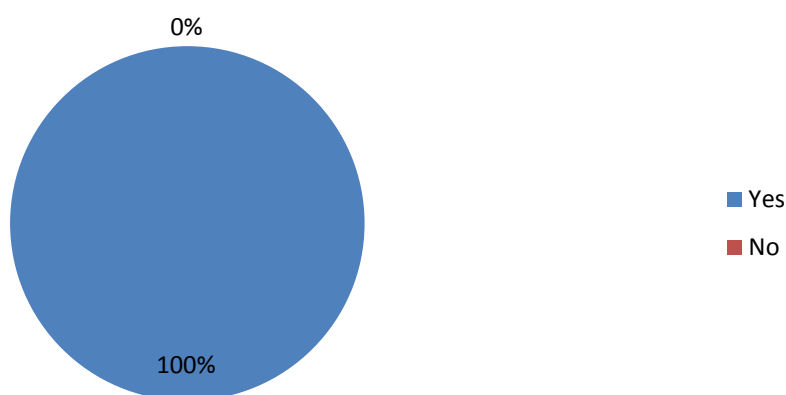
The new insurance scheme will stimulate farmers to insure their crops by making it mandatory for those interested to use the state subsidies.

In addition, by implementing the suggested scheme, the confidence in the instrument will be much higher, considering the state is the responsible legal person, and chances for farmers not being indemnified, are very low. By implementing the subsidies system and other similar measurements the state undertakes in direction of supporting this sector, it has established solid relationships with the farmers, which increases the chances of favorability to use this instrument entirely.

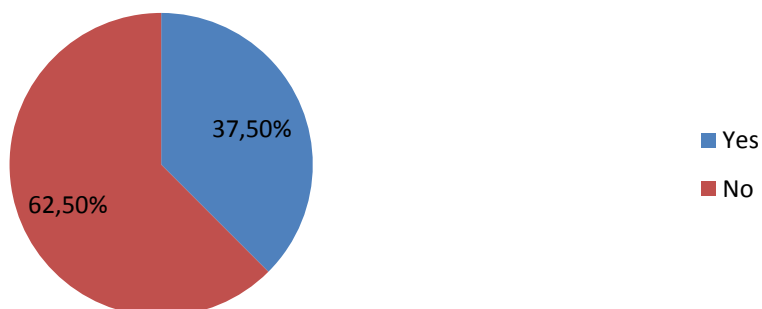
APPENDIX 1

The utilization of the Agricultural insurance as a risk-transferring tool in Republic of Macedonia

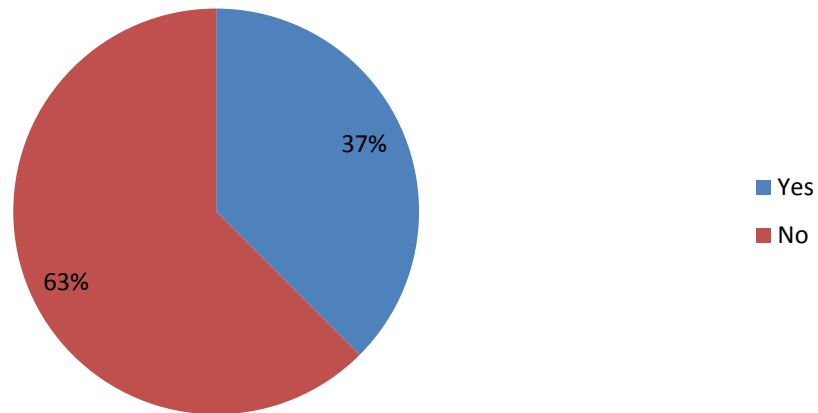
1. Did your farm suffered damages caused by natural disasters (flood, fire, draught and hail) in the last 5 years



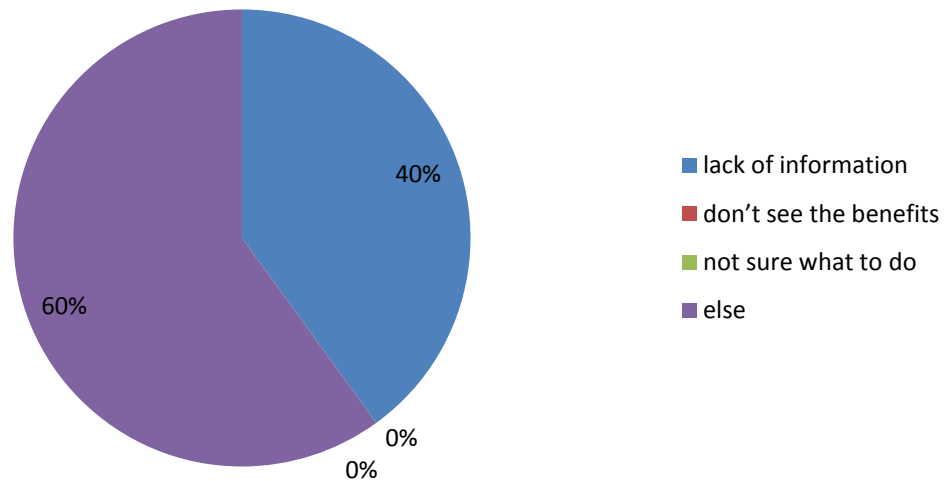
2. Do you have support by any institution/company (public or private) when your farmers and damaged by natural disasters?



3. Is your farm insured for flood, fire, draught and hail?



Reasons for not using agricultural insurance



Else – lack of financial resources, do not consider the assessors make regular decisions when assessing the damages.